Course Outline

Data Modeling with PowerDesigner 16.5

Course Summary

Description

Learn how PowerDesigner can be used as a tool during the data analysis, data modeling, and database design processes. Employ PowerDesigner to create a conceptual and logical data models with entities, attributes, and relationships. Learn to target a DBMS, generate, and enhance a physical data model, and then generate a database creation script for database tables, indexes, views, triggers, and stored procedures.

Objectives

After taking this course, students will be able to:
- Define glossary terms
- Distribute model templates using the Library
- Create and manage conceptual and logical data models
- Generate and manage physical data models
- Generate database creation scripts
- Produce implementation details, such as triggers, procedures, and views
- Reverse engineer an existing database to create physical, conceptual, and object-oriented models
- Compare and merge models
- Synchronize physical data models with databases
- Manage large models and multiple designers using the PowerDesigner Repository
- Create effective reports on PowerDesigner models
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- Distribute model templates using the Library
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- Generate and manage physical data models
- Generate database creation scripts
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- Compare and merge models
- Synchronize physical data models with databases
- Manage large models and multiple designers using the PowerDesigner Repository
- Create effective reports on PowerDesigner models

Topics

- SAP PowerDesigner
- Conceptual Data Models (CDMs) and Logical Data Models (LDMs)
- Physical Data Models (PDMs)
- Model Synchronization
- Model Organization
- Reporting
- Impact Analysis
- The Repository

Audience

This course is designed for:
- Business Analysts
- Data Consultants / Managers
- Database Administrators
- Developers
- Developer Consultants

Prerequisites

Before taking this course, students should have an understanding of relational database concepts and database implementation issues and exposure to Entity Relationship (ER) data modeling and data normalization.

Duration

Four days
Course Outline

I. SAP PowerDesigner
   A. Identifying Key Components of the SAP PowerDesigner Environment
   B. Creating a Project in the Workspace
   C. Adding a Model to the Library
   D. Creating a Glossary

II. Conceptual Data Models (CDMs) and Logical Data Models (LDMs)
   A. Applying Model Properties and Options
   B. Creating Entities and Domains
   C. Creating Relationships in CDMs and LDMs
   D. Creating Inheritance Links in a Model
   E. Checking a CDM

III. Physical Data Models (PDMs)
   A. Generating a PDM from Another Model
   B. Implementing Data Integrity Checks in a PDM
   C. Creating Views, Stored Procedures, and Triggers
   D. Creating Indexes and Alternate Keys
   E. Checking a PDM
   F. Generating a Database from a PDM
   G. Reverse Engineering from a Database

IV. Model Synchronization
   A. Comparing Models
   B. Merging Models
   C. Synchronizing Models

V. Model Organization
   A. Creating and Modifying a Package
   B. Creating a Diagram
   C. Creating a Package from a Diagram
   D. Creating a Dependency Matrix

VI. Reporting
   A. Creating a Report Template
   B. Creating a Report
   C. Generating a Report
   D. Creating a Multi-Model Report

VII. Impact Analysis
   A. Creating Requirements
   B. Creating a Link Between Models
   C. Generating an Impact Analysis Model (IAM)

VIII. The Repository
   A. Modifying Documents in the Repository
   B. Setting up a Repository Workflow
   C. Integrating Changes Across Repository Branches
   D. Managing a Repository